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IHSA-82-029

29 June 1982

NOTE TO:

Chief, Building Planning Staff, OL

STAT

FROM:

Information Handling Systems Architect Staff, DDA

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SUBJECT: Desirable New Building Features

Dear Larry:

1. The following comments, keyed to the 6 May Statement of Work Attachment, are forwarded for your consideration:

- a) Page 5; Suggest that structural design solutions such as column spacing, materials, alternatives, etc., be selected with strong emphasis to minimize internal columns and maximize layout flexibility.
- b) Page 6; item 2: Suggest consideration be given to also providing deliverables, to the extent practicable, in electrical format vice exclusively paper format as implied.
- c) Page 8; Believe that provision should be made to support an easy-access, "plug-in" type, connection for an information processing terminal in each office. Data and telecommunication grid concepts should be expanded to include consideration of a broadband coaxial bus in the new building. (see para 2 below)
- d) Page 9; Presume that thermostatic controller types will be evaluated to maximize reliability and efficiency in the HVAC design.
- e) Page 11; Re: Critical Path Method Construction Schedule, Suggest that you specify with more definition the CPM math processes to be employed; e.g., simple bubble chart outlining most cost-effective course, least expensive, or whatever.

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- f) Page 12; Consider data distribution port inventory database as outlined in item c above. Presume that alarm layout includes both safety and security alarms. Also suggest that thermostatic controller layout database also be prepared. This will maximize energy conservation by feeding into central computer-controlled monitors.
- g) Page 13; Is intent to hold the A&E legally responsible for the construction contractor's performance? If not, suggest the "guarantee ... to within ± 5 percent" be appropriately reworded.

2. Although I am an observer on the Technical Advisory Group, the following observations may prove useful in considering the electrical (data distribution, specifically) features of the building:

- a) The plan to deploy over ten thousand computer terminals within the Agency by the end of this decade will, in our view, necessitate installation of an easy and secure means of connection to the data distribution medium. We believe that the new building provides a superb opportunity to install a modern, proven, commercially available data distribution capability to fill this need. Various coaxial busses would seem to be candidate solutions. Timeliness in making or moving connections should be a major consideration.
- b) There will probably be expanded requirements to connect into "outside" networks in the future (Autodin or DDN, DSSCS, wire services, etc.). A special DND facility, apart from similar internal functions, that would be especially tailored for interface to these external networks would be a very useful addition.
- c) Regardless of all the efforts put into planning and standardization, there will remain requirements for both grids and busses, local area networks and computer center interconnections, special purpose high data rate and low speed point-to-point links, many of them unforeseen and/or unanticipated. This all portends a need to plan to accommodate additional and extensive building "wiring" in the design of the conduits, junction boxes and other infrastructure to support future requirements. The burgeoning growth that is expected and the cost savings to be realized by including the initial construction both argue in favor of designing for substantial

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"reserve capacity" in telecommunications and data distribution within the new building. This will obviate many unforeseen future problems and provide for an easier transition as the new building technology is adopted and applied to the present Headquarters structure.

3. Lastly, just a general observation from the utilities study, it seems that the recommended approach may not be in total agreement with the findings of the report. Not that that is any problem, but Bob believes rather strongly that the cross link testing should be automatic, not manual, so that the whole control process can be checked out reliably and, hence, achieve improved system availability. As you know, good reliability in the utilities area is highly dependent on a robust and comprehensive testing capability.

Please excuse the pontification.

Regards,

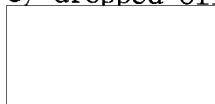


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On PRS:



Info cy dropped off to DND rep, also.



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